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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,266	12/16/2003	Lee Tice	SYS-P-1280 (8364-90590)	5858
7590 Patent Services Group Honeywell International, Inc. 101 Columbia Road P. O. Box 2245 Morristown, NJ 07962			EXAMINER NGUYEN, VAN KIM T	
			ART UNIT 2151	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			04/20/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/737,266	<b>Applicant(s)</b> TICE ET AL.	
	<b>Examiner</b> Van Kim T. Nguyen	<b>Art Unit</b> 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on June 01, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/12/04 and 10/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to communications filed on December 16, 2003.  
Claims 1-25 are pending in the application.

#### ***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on July 12, 2004 and October 12, 2004 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

#### ***Claim Objections***

3. Claims 2-10 and 15-25 are objected to because of the following informalities:  
  
Claims 2-10 recite the limitation "A unit as in claim ...". There is insufficient antecedent basis for this limitation in the claim since the limitation "A unit" has not been introduced prior to this. However, in the interest of advancing prosecution of the case, Examiner will interpret this limitation as "An electrical unit as in claim ...".

Similarly, claims 15-25 recite the limitation "A system as in claim ...". There is insufficient antecedent basis for this limitation in the claim since the limitation "A system" has not been introduced prior to this. However, in the interest of advancing prosecution of the case, Examiner will interpret this limitation as "A communication system".

In addition, claim 25 recites the limitation "where members of the plurality...". It probably should be "where member of the plurality of devices...".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6, 8, 15-19, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by van Bokhorst et al (US 6,192,230), hereinafter van Bokhorst.

Regarding claim 1, van Bokhorst et al discloses an electrical unit (20) comprising:

a wireless communications port (20, 30);

control circuitry (44) coupled to the port, the control circuitry having, at least, an inactive mode interrupted by a periodic limited duration active mode, including circuitry to monitor the port for receipt of an expected synchronizing wireless signal, during the active mode, and, responsive thereto to determine if a received signal is an expected signal (e.g., transceiver 30 of station 20 either in an awake state or in a doze state, dependent on the state of switch 44.

Initially when station 20 is powered-up, it is put in the awake state, until it receives a traffic indicator message (TIM), which is broadcasted at regular intervals under the control of the TIM timer 62. Switch 44 is switched on to initiate an awake state in response to the timing out of the timer and is switched off to initiate a doze state; col. 3: line 42 - col. 6: line 16).

Regarding claim 2, van Bokhorst also discloses at least a radio frequency receiver coupled between the port and the control circuitry (e.g., wireless transceiver coupled to antenna 22, Figure 3).

Regarding claim 3, van Bokhorst also discloses additional circuits (34, 36, 46, 47, 62) to evaluate the received synchronizing signal for the presence of a signal expected indicium, and, responsive thereto, to determine if an additional message is expected (e.g., if the next TIM message TIM-2 indicates that messages are to be transmitted to stations 1 and 2, stations 1 and 2 remain awake at least until the reception of the next TIM message, and their doze timers are not effective; van Bokhorst, col. 5: lines 31-35).

Regarding claim 4, van Bokhorst et al also discloses circuitry (34, 36, 46, 47, 62) to extend the active mode and to acquire and respond to any expected additional message (e.g., if the next TIM message TIM-2 indicates that messages are to be transmitted to stations 1 and 2, stations 1 and 2 remain awake at least until the reception of the next TIM message, and their doze timers are not effective; van Bokhorst, col. 5: lines 31-35).

Regarding claim 5, van Bokhorst-Lucas also discloses the control circuitry comprises, at least in part, a processor (34) and executable instructions (e.g., mobile station functions as a hand held data processing device, thus it is obvious it comprises executable instructions; van Bokhorst, col. 3: lines 45-50).

Regarding claim 6, van Bokhorst also discloses timer circuitry (62), coupled to the processor, for initiating the periodic, limited duration active mode (col. 4: lines 36-40).

Regarding claim 8, van Bokhorst also discloses includes executable instructions for

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transmitting data with a different protocol than the received synchronizing signal (col. 3: line 42 - col. 4: line 15).

Regarding claim 15, van Bokhorst also discloses a communication system (210) comprising at least two devices that can wirelessly transmit and receive signals:

- a first device (220-1) wirelessly transmitting a synchronization signal;
- at least a second device (220-2, 220-3, 220-4) receiving the wireless synchronization signal, the second device synchronizes functions to the synchronization signal such that the energy consumption of the second device is reduced for a period of time between synchronization signals (col. 7: line 25 - col. 9: line 27).

Regarding claim 16, van Bokhorst also discloses the second device includes a battery 240 (col. 7: lines 34-37).

Regarding claim 17, van Bokhorst also discloses the synchronization signal is transmitted periodically with a predetermined timing (col. 8: lines 5-15).

Regarding claim 18, van Bokhorst also discloses the synchronization signal includes at least one of RF frequencies, optical frequencies or sonic frequencies (e.g., since wireless transceiver 30 is coupled to antenna 22, thus it is inherent the synchronization signal received at mobile station 20 includes at least one of RF frequencies; Figures 1-3).

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Regarding claims 19, van Bokhorst also discloses the synchronizing function includes transmitting a signal representative of a detector state (e.g., TIM; col. 4: line 16 - col. 7: line 14).

Regarding claim 21, van Bokhorst also discloses the first device receives the transmitted signal (Figures 8-9).

Regarding claim 24, van Bokhorst including a plurality of devices (220-1 to 220-4) receiving the wireless synchronization signal (Figure 8).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Bokhorst, in view of Chung et al (US 7,197,304), hereinafter Chung.

Regarding claim 11, van Bokhorst also discloses a method comprising:

transmitting a wireless synchronizing signal on a periodic basis (col. 7: line 57 – col. 8: line 15);

entering an active mode to receive and evaluate the synchronizing signal, and responsive thereto, entering one of a data receiving or a data transmitting mode (col. 8: line 46 – col. 9: line 27).

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However, van Bokhorst does not explicitly call for the data having a different protocol than the synchronizing signal.

Chung teaches the data having a different protocol than the synchronizing signal (col. 2: line 28 – col. 4: line 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Chung's teaching to van Bokhorst's system in order to optimize the performance of the mobile communication network.

Claim 7 is rejected under the same basis as claim 11.

8. Claims 9-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Bokhorst- Chung as applied to claims 7 and 11 above, and further in view of O'Scolai (US 7,050,409), hereinafter O'Scolai.

Regarding claims 9-10 and van Bokhorst-Chung fail to disclose executable instructions that sense and decode multiple data signals received from multiple sources substantially simultaneously.

O'Scolai teaches executable instructions that sense and decode multiple data signals received from multiple sources substantially simultaneously (col. 5: line 34 – col. 6: line 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply O'Scolai's teaching to van Bokhorst-Chung's system, motivated by the desire of enhancing the quality of transmission and better utilization of network resources.

Regarding claim 13, van Bokhorst-Chung also discloses includes minimizing energy



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requirements at a plurality of synchronizing signal receiving locations between such signals (van Bokhorst, col. 8: line 5 – col. 9: line 64).

9. Claims 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Bokhorst, as applied to claims 18 and 15 above, respectively, in view of O'Scolai.

Regarding claim 20, van Bokhorst discloses substantially all the limitations, except the detector state comprises at least one of an alarm, trouble, voltage, input, or sensor condition.

O'Scolai teaches a system and method for transmitting frequency variation, synchronization at the receiver, and provides a virtual signaling channel which may be used for system alarm and status (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply O'Scolai's teaching to van Bokhorst's system, motivated by the desire of enhancing the quality of transmission and better utilization of network resources.

Regarding claim 22, van Bokhorst-O'Scolai also discloses the transmitting of a signal includes at least in part a frequency that is the same as the synchronization frequency (col. 3: line 26 – col. 4: line 46).

Regarding claim 23, van Bokhorst-O'Scolai also discloses the synchronization signal includes variable frequencies (col. 3: line 26 – col. 4: line 46).

10. Claims 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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van Bokhorst, as applied to claims 11 and 18 above, in view of Lucas et al (US 2003/0185158), hereinafter Lucas.

Van Bokhorst discloses substantially all the claimed limitations, except members of the plurality of devices each includes circuitry to transmit data signals at different offsets from the synchronizing signal in response to at least one of, a substantially random number, or, a unique device identifier.

Lucas teaches members of the plurality of devices each includes circuitry to transmit data signals at different offsets from the synchronizing signal in response to at least one of, a substantially random number, or, a unique device identifier (para 0016-0018).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Lucas' method of correcting frequency in van Bokhorst's system, motivated by the need of improving success in packets detection and acquisition.

### *Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Method and System for Sample and Recreation Synchronization for Digital Transmission of Analog Modem Signal, Hoobler (US 7,130,337);

System and Method for Correcting the Clock Drift and Maintaining the Synchronization of Low Quality Clocks in Wireless Network, Belcea (US 7,072,432);

Synchronizing Clocks Across a Communication Line, Sinha et al (US 6,944,188);

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Method and Apparatus for Battery Life Extension for Nodes within Beacons Network,  
Callaway et al (US 6,879,567);

Threshold Detection for Detecting Synchronization Signals at Correlating Output During  
Packet Acquisition, Garrett et al (US 6,724,834);

Wireless Local Area Network Apparatus, Diepstraten et al (US 6,707,867);

Method and Apparatus for Reducing Power Consumption in a Network Drive, Ady et al  
(US 6,694,149); and

Power Management Method of and Apparatus for use in a Wireless Local Area Network,  
Romans (US 6,665,520).

12. Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073.  
The examiner can normally be reached on 8:00 AM - 4:30 PM.

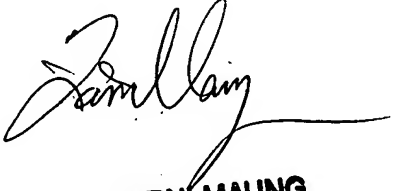
If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3939. The fax phone number  
for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Van Kim T. Nguyen  
Examiner  
Art Unit 2151

vkn



**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**